



Test and Evaluation Master Plan (TEMP) Overview

April 2010

TEMAC T&E Refresher Course



What is a TEMP ?

- **Executive level strategy and basic planning document for all life cycle T&E for a particular system acquisition**
- **Overall T&E structure, major elements, and objectives**
- **Consistent with Acquisition Strategy, TDS, CDD/CPD, STA, & ISP**
- **Consistent and complementary to the Systems Engineering Plan**
- **Sufficient detail to permit planning for timely availability of test resources required to support the T&E program**
- **Road Map for:**
 - **Evaluation framework**
 - **Schedules and Decisions supported**
 - **Resource requirements**

The 'Contract' Between All Stakeholders!

TEMAC T&E Refresher Course



Policy/Guidance

- **10 U.S.C. Section 139 - Director of Operational Test and Evaluation**
- **DODI 5000.02: Operation of the Defense Acquisition System** (*8 Dec 2008*)
- ***Interim Defense Acquisition Guidebook*** (*7 July 2008*)
- **AR 73-1: Test and Evaluation Policy** (*1 August 2006*)
 - **Chapter 8: T&E Working-level Integrated Product Team (WIPT)**
 - **Chapter 10: T&E Review and Reporting Requirements**
 - **Para. 10-2 - Test and Evaluation Master Plan**
TEMAC T&E Refresher Course
- **DA PAM 73-1: T&E in Support of Systems Acquisition** (*30 May 2003*)



Applicable Programs

- Every Army acquisition program will have a TEM
- Only exceptions are investigational drugs, biologics & medical devices

**All
Materiel and Information Technology
Programs**

TEMAC T&E Refresher Course



Preparation

- **Responsibility: Program / Project Manager (PM)**
- **Execution: T&E WIPT**

TEMAC T&E Refresher Course



TEMP Format & Content

- **Approval Page**
- **T&E WIPT Coordination Sheet**
- **Part I - Introduction**
- **Part II - Test Program Management and Schedule**
- **Part III - Test and Evaluation Strategy**
- **Part IV - Resource Summary**
- **Annex A - Bibliography**
- **Annex B - Acronyms**
- **Annex C - Points of Contact**
- **Attachment 1 - Requirements/Test Crosswalk Matrix**
- **Additional appendices/annexes/attachments as needed**

TEMAC T&E Refresher Course



TEMP Part I

Introduction

1.1 PURPOSE

1.2 MISSION DESCRIPTION

1.3 SYSTEM DESCRIPTION

1.3.1 System Threat Assessment

1.3.2 Program Background

1.3.2.1 Previous Testing

1.3.3 Key Capabilities

1.3.3.1 Key Interfaces

1.3.3.2 Special test or certification requirements

1.3.3.3 Systems Engineering (SE) Requirements

TEMAC T&E Refresher Course



TEMP Part II - Test Program Management and Schedule

2.1 T&E MANAGEMENT

2.1.1 T&E Organizational Construct

2.2 COMMON T&E DATA BASE REQUIREMENTS

2.3 DEFICIENCY REPORTING

2.4 TEMP UPDATES

2.5 INTEGRATED TEST PROGRAM SCHEDULE

Figure 2.1 - Integrated Test Program Schedule

TEMAC T&E Refresher Course



TEMP Part III

Test and Evaluation Strategy

1 of 3

3.1 T&E STRATEGY

3.2 EVALUATION FRAMEWORK

Figure 3.1 - Top-Level Evaluation Framework Matrix

3.3 DEVELOPMENTAL EVALUATION APPROACH

3.3.1 Mission-Oriented Approach

3.3.2 Developmental Test Objectives

3.3.3 Modeling and Simulation

3.3.4 Test Limitations

TEMPAC T&E Refresher Course



TEMP Part III

Test and Evaluation Strategy

3.4 LIVE FIRE EVALUATION APPROACH

2 of 3

3.4.1 Live Fire Test Objectives

3.4.2 Modeling and Simulation

3.4.3 Test Limitations

3.5 CERTIFICATION FOR IOT&E

3.5.1 Assessment of Operational Test Readiness

3.6 OPERATIONAL EVALUATION APPROACH

3.6.1 Operational Test Objectives

3.6.2 Modeling and Simulation

3.6.3 Test Limitations

TEMAC T&E Refresher Course



TEMP Part III

Test and Evaluation Strategy

3 of 3

3.7 OTHER CERTIFICATIONS

3.8 RELIABILITY GROWTH

3.9 FUTURE TEST AND EVALUATION

TEMAC T&E Refresher Course



TEMP Part IV

Resource Summary

1 of 2

4.1 INTRODUCTION

- 4.1.1 Test Articles**
- 4.1.2 Test Sites and Instrumentation**
- 4.1.3 Test Support Equipment**
- 4.1.4 Threat Representation**
- 4.1.5 Test Targets and Expendables**
- 4.1.6 Operational Force Test Support**
- 4.1.7 Models, Simulations, and Test-beds**
- 4.1.8 Joint Operational Test Environment**
- 4.1.9 Special Requirements**

TEMAC T&E Refresher Course



TEMP Part IV

Resource Summary

2 of 2

4.2 FEDERAL, STATE, LOCAL REQUIREMENTS

4.3 MANPOWER/PERSONNEL TRAINING

4.4 TEST FUNDING SUMMARY

Table 4.1 Resource Summary Matrix

TEMAC T&E Refresher Course



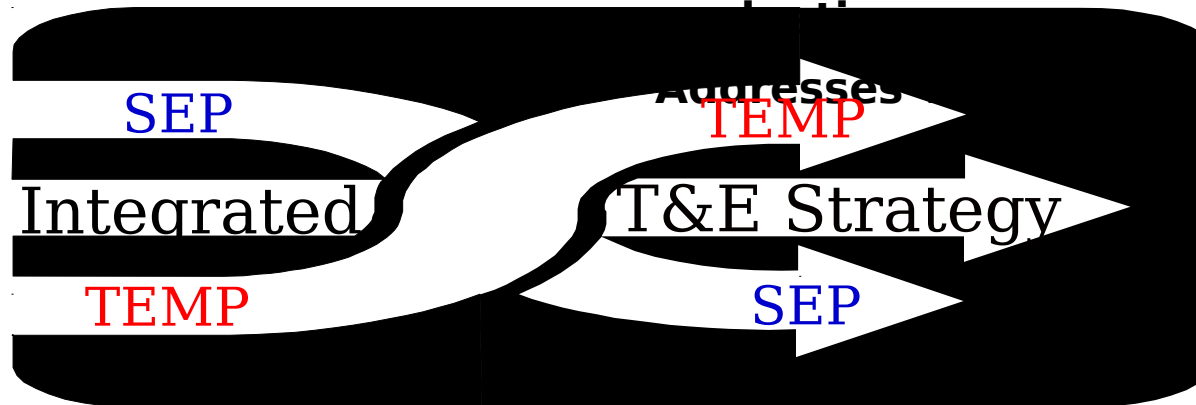
TEMP - SEP CONTRAST

TEMP

- T&E WIPT produces
- MDA (or designee) approves
- Serves as a T&E 'Contract'
- Issue level of detail
- Can include all events

SEP

- ATEC System Team (AST) produces
- ATEC Commander (or designee) approves
- Outlines HOW evaluation will be done
- Measure level of detail
- Only events necessary for



TEMAC T&E Refresher Course

AR 73-1 (para 1-4h) - 'The detailed information contained in the SEP supports concurrent development of the TEMP.'



TEMP Approval Process With HQDA Involvement

- **T&E WIPT develops TEMP** *(all members empowered; includes DA Staff)*
- **Final T&E WIPT TEMP ‘Signing Party’ meeting** *(members sign TEMP Coordination Sheet)*
- **PM submits TEMP Approval Page; obtains PEO, TRADOC, & ATEC**
simultaneous concurrence signatures *(Goal: Complete at T&E WIPT via empowered members)*
- **PM delivers TEMP with all concurrence signatures to TEO**
- **HQDA(TEO) staffs & delivers TEMP to Army T&E Executive for approval**
- **Army T&E Executive provides sole HQDA approval signature within 10 days**
- **HQDA(TEO) sends TEMP to OSD** *(Army goal is within 30 calendar days from PM signature)*
- **OSD staffing and approval objective** *(45 calendar days from receipt to return to HQDA(TEO))*

TEMAC T&E Refresher Course

Note: TEMPs are required to be updated at Milestone C and Full Rate Production Decision Review, but should also be updated when the program baseline has



TEMP Approval Process Without HQDA Involvement

- **T&E WIPT develops TEMP** *(all members empowered)*
- **Final T&E WIPT TEMP 'Signing Party' meeting** *(members sign TEMP Coordination Sheet)*
- **PM delivers TEMP with all concurrence signatures to MDA or Designated TEMP**

Approval Authority for approval

- **PM distributes TEMP after MDA approval**

Note: TEMPs are required to be updated at Milestone C and Full Rate Production Decision Review, but should also be updated when the program baseline has been breached, when the associated JCIDS document or Information Support Plan has been significantly modified, or on other occasions when the program is significantly changed or restructured. Evolutionary acquisition programs may require additional updates to ensure that the TEMP reflects the currently defined program. When a program changes significantly, the TEMP due date will be negotiated between the PM and the DoD Component TEMP approval authority. The goal should be to update the TEMP within 120 days.

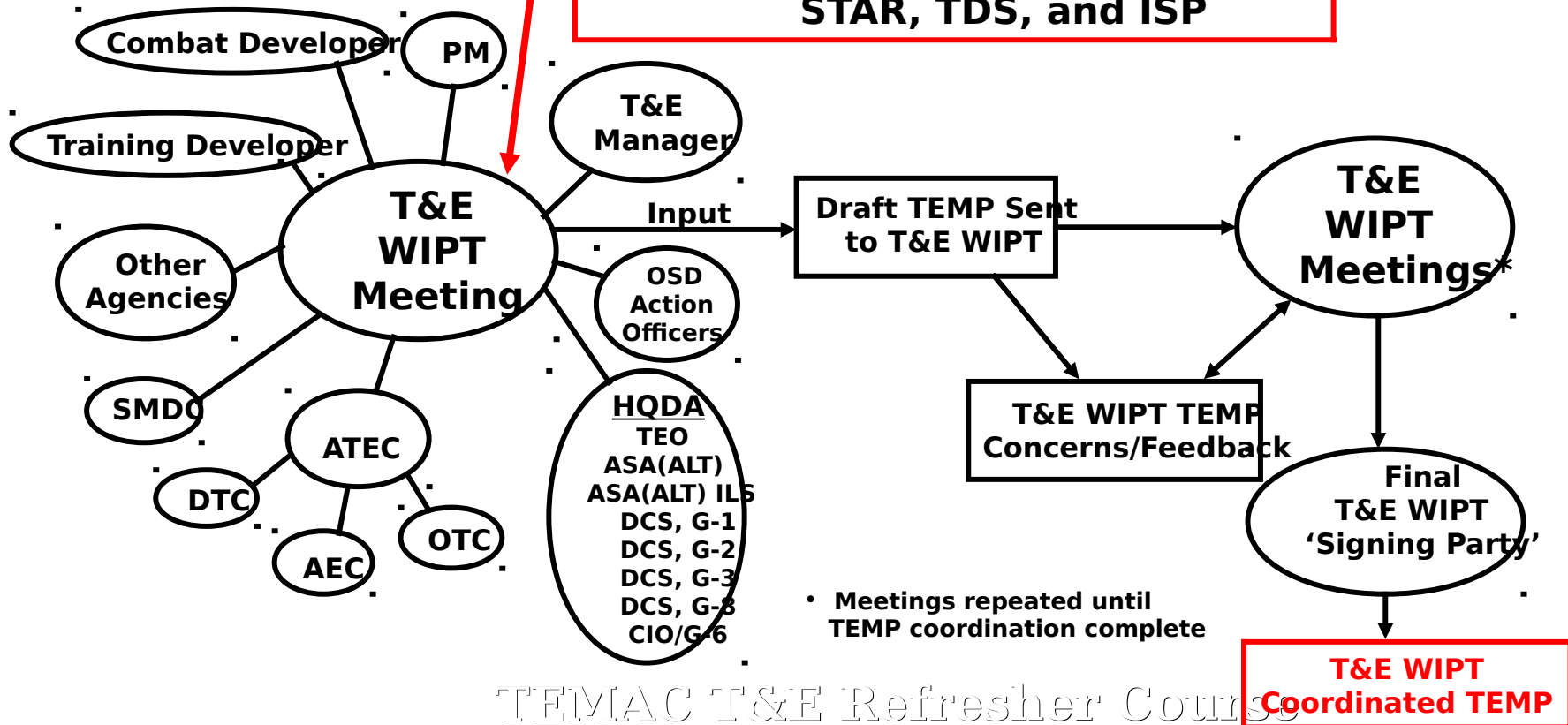
(Source:



Army TEMP T&E WIPT Coordination Process

Approved Critical Operational
Issues and Criteria

Acquisition Strategy
Requirements Documents
(CDD/CPD)
STAR, TDS, and ISP

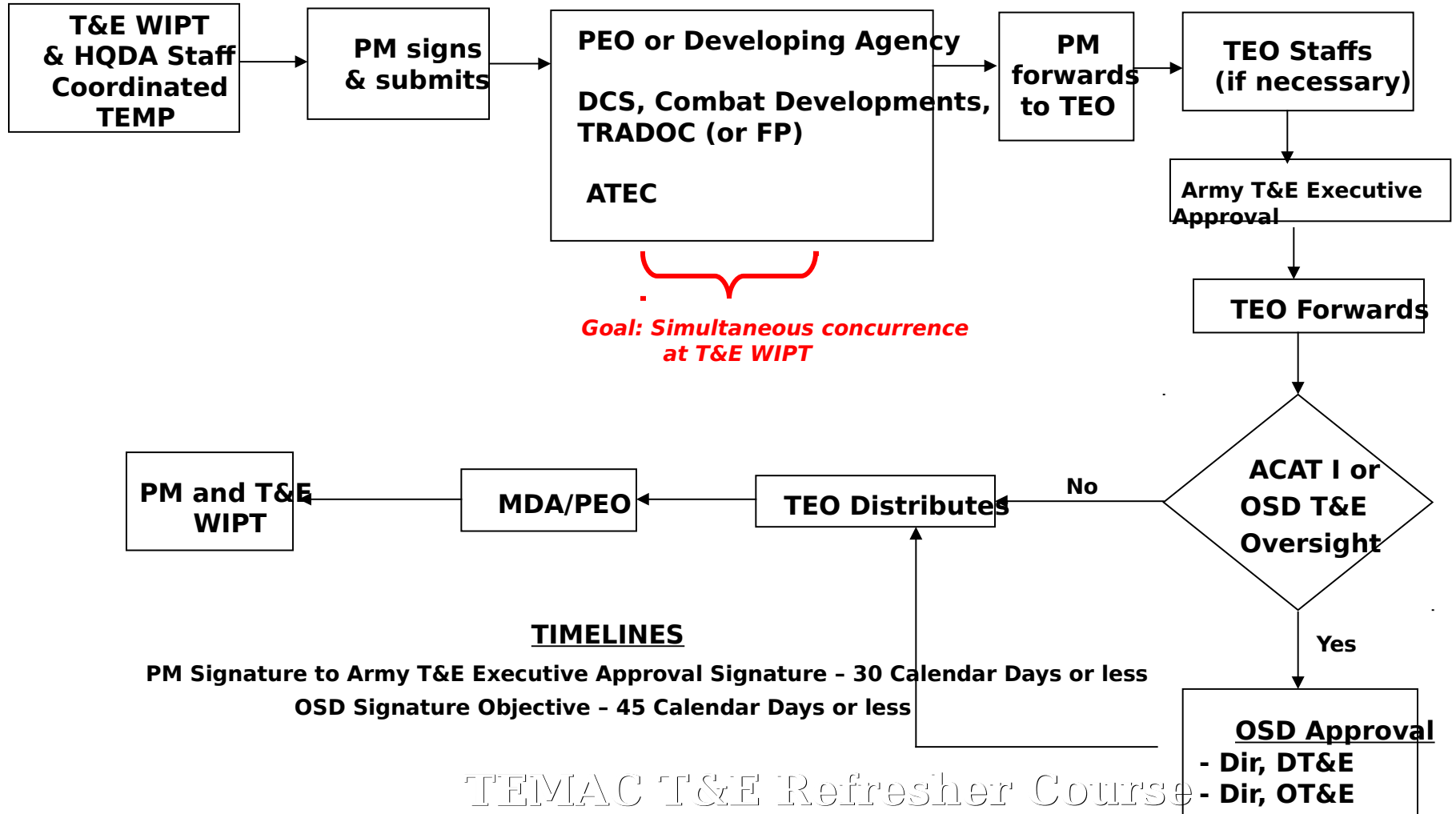


TEMAC T&E Refresher Course



TEMP Staffing and Approval Process

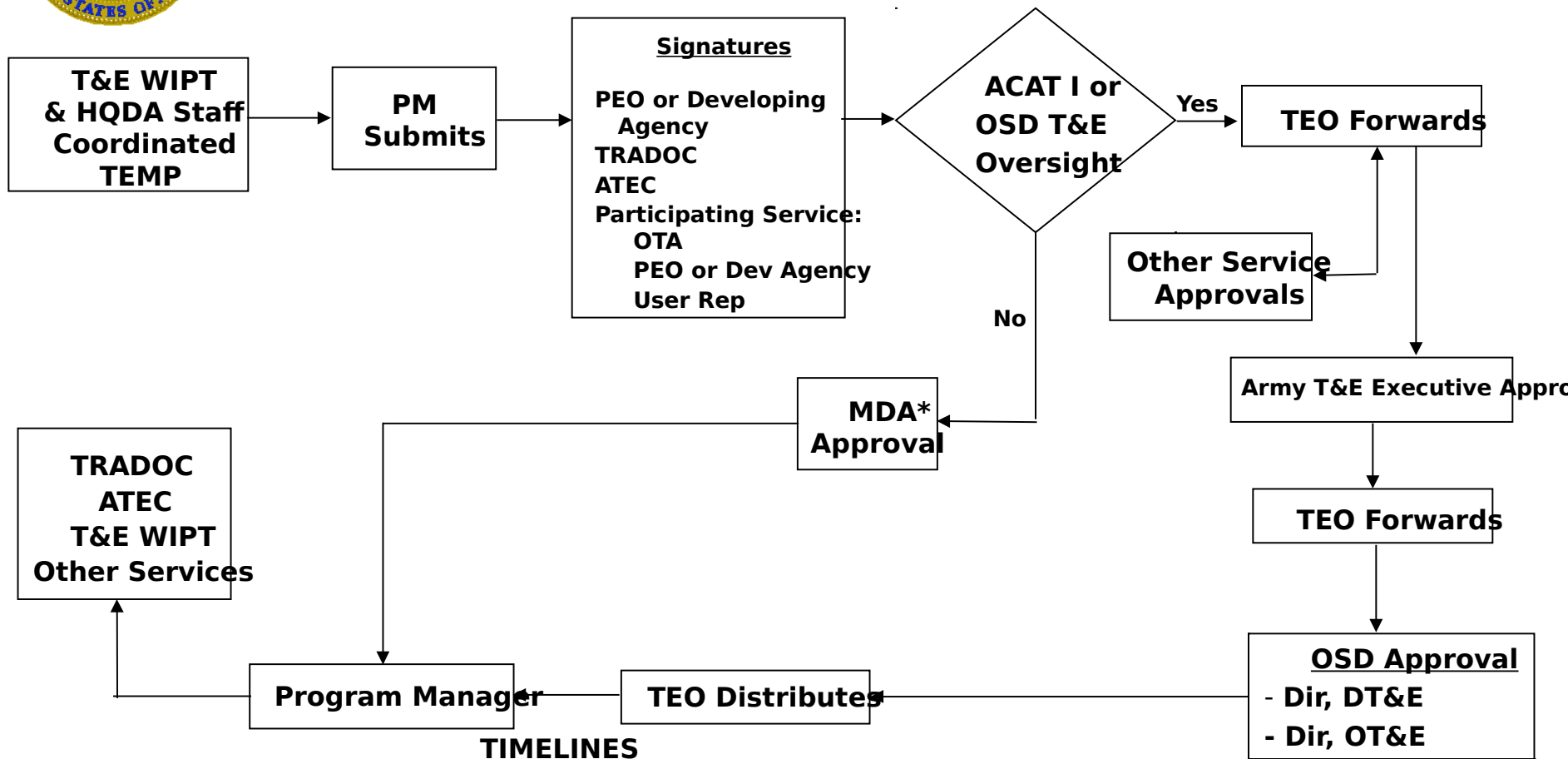
OSD T&E Oversight Programs





TEMP Staffing and Approval Process

Multi-Service OSD T&E Oversight Programs - Army Lead



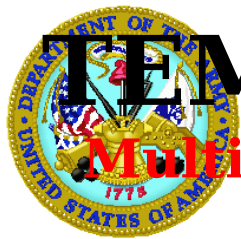
PM Signature to Army T&E Executive Approval Signature - 30 Calendar Days or less

OSD Signature Objective - 45 Calendar Days

or less

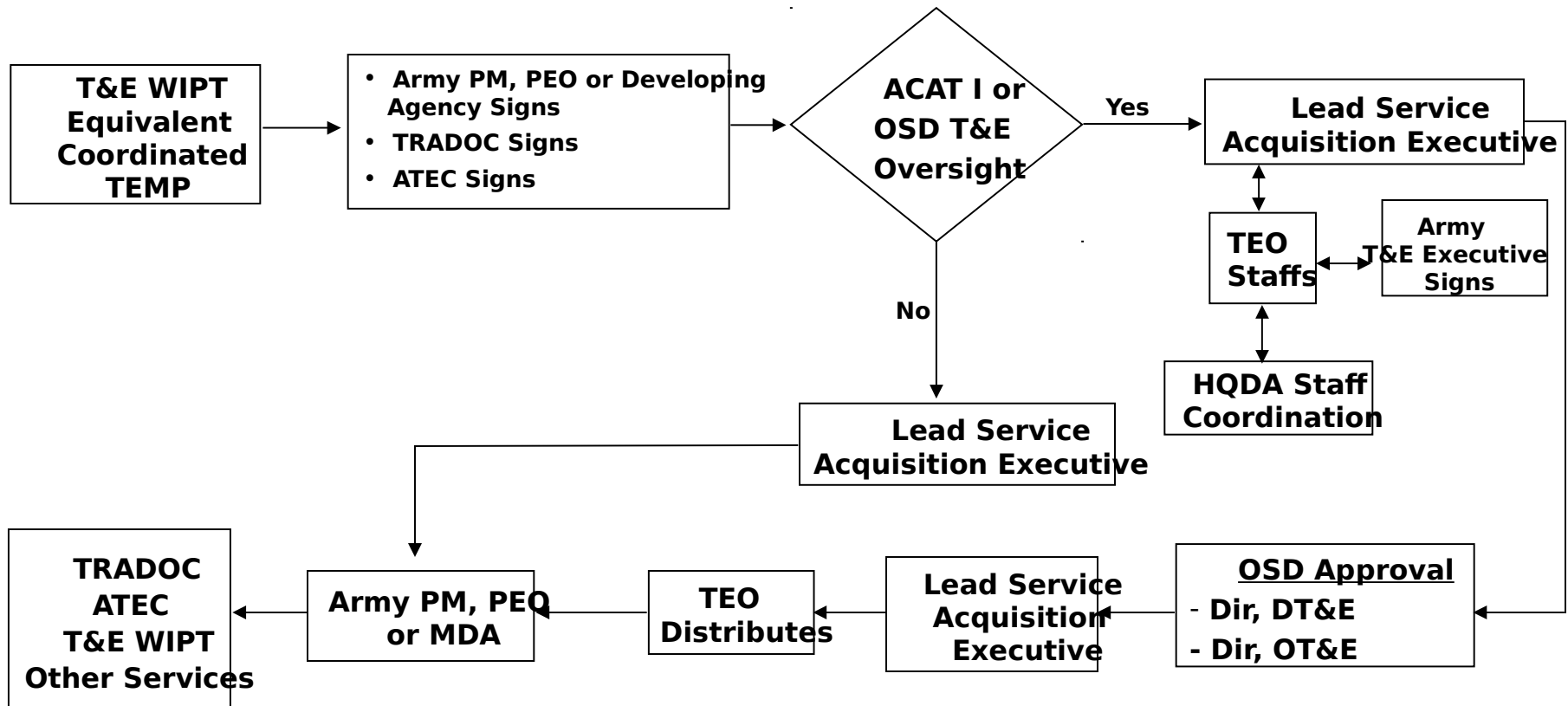
* ACAT II programs having MDA delegation also have TEMP delegated approval authority

TIMELINES



TEMP Staffing and Approval Process

Multi-Service OSD T&E Oversight Programs - Army Participation



TIMELINES

TEMA Receipt to Army T&E Executive Approval Signature - 20 Calendar Days or less

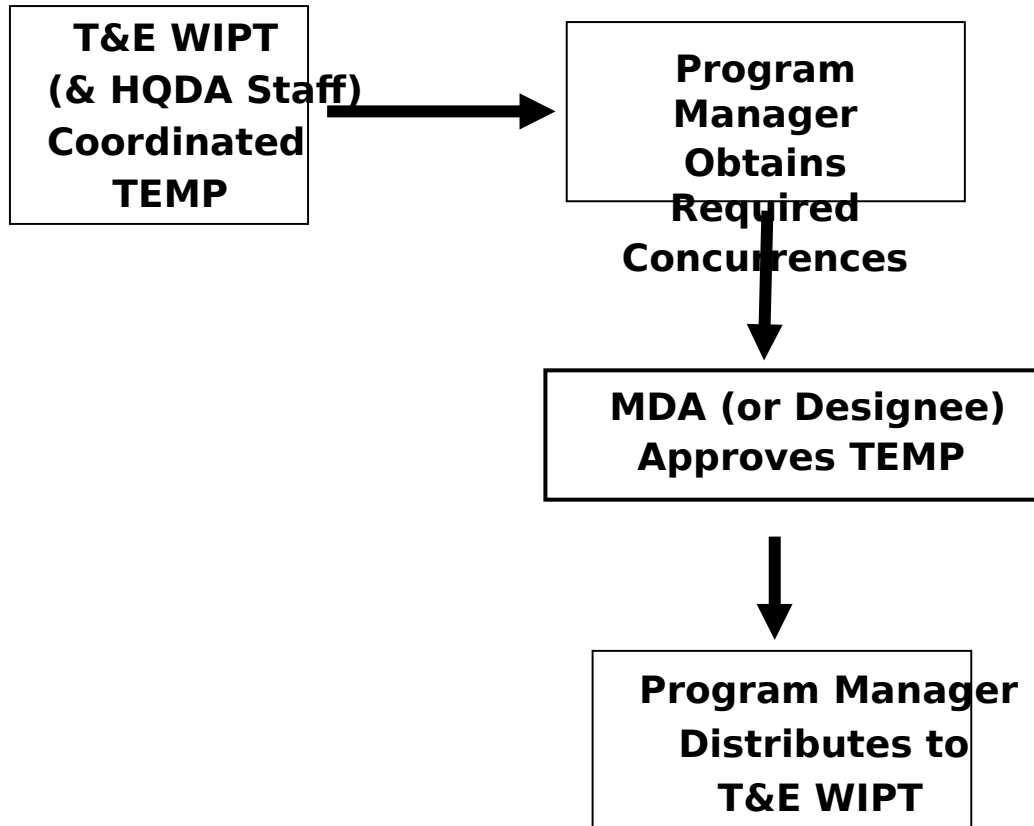
OSD Signature Objective - 45 Calendar Days or less

TEMAC T&E Refresher Course



TEMP Staffing and Approval Process

Non-OSD T&E Oversight - ACAT II, III, & Army Special Interest Program



TEMAC T&E Refresher Course



TEMP “Do’s” and “Don’ts”

1. **DO** ensure Core T&E WIPT members agree with any change(s) required to obtain TEMP approval after providing their coordination signature.
2. **DO** enforce configuration control over the TEMP.
3. **DO** have Part IV (Resources) based upon Parts II and III.
4. **DO** have the Requirements / Test Crosswalk Matrix as Attachment 1.
5. **DO** know the TEMP Approval Authority before developing the TEMP.
6. **DO** be very aware of COIC & CDD / CPD staffing approval timelines.
7. **DO** treat the TEMP as a **CONTRACT** among all Stakeholders!!!
TEMP T&E Refresher Course
8. **DON'T** attempt to gain TEMP approval before obtaining COIC approval.



T&E WIPT

“Do’s” and “Don’ts”

- **Do** invite HQDA offices to participate in the T&E WIPT
- **Do** obtain appropriate OSD office(s) involvement early
- **Do** know T&E WIPT issues & be empowered
- **Do** hold program to the rigorous T&E process
- **Do** base positions on facts, vice emotions
- **Do** elevate an issue if unable to resolve within the T&E WIPT
- **Don’t** dismiss T&E WIPT meetings as unimportant
- **Don’t** dismiss T&E WIPT members’ comments without reasoned debate
- **Don’t** allow unresolved issues to fester within the T&E WIPT
(that is, take extra effort to resolve one-on-one and face-to-face)
- **Don’t** disband the T&E WIPT after TEMP approval

TEMPAC T&E Refresher Course



“Deadly Sins”

Affecting TEMP Approval

- **Premature Submission:** Submitting a TEMP for approval when an issue(s) precluding TEMP approval exists_
- **Failure to Pre-Coordinate:** HQDA: T&E Office and HQDA Staff
OSD: DT&E and DOT&E
- **Incomplete:** Requirements / Test Crosswalk Matrix missing
Classified data not integrated - submitted separately
Too many TBDs in Part IV (Resources)
- **COIC:** Not HQDA approved and incorporated
- **Size:** Body of plan, excluding annexes, not kept to a manageable length
- **Annexes:** Not kept to a minimum
- **Reference Documents:** ICD / CDD / CPD & STAR not approved / unavailable

TEMPAC ICD Refresh Course

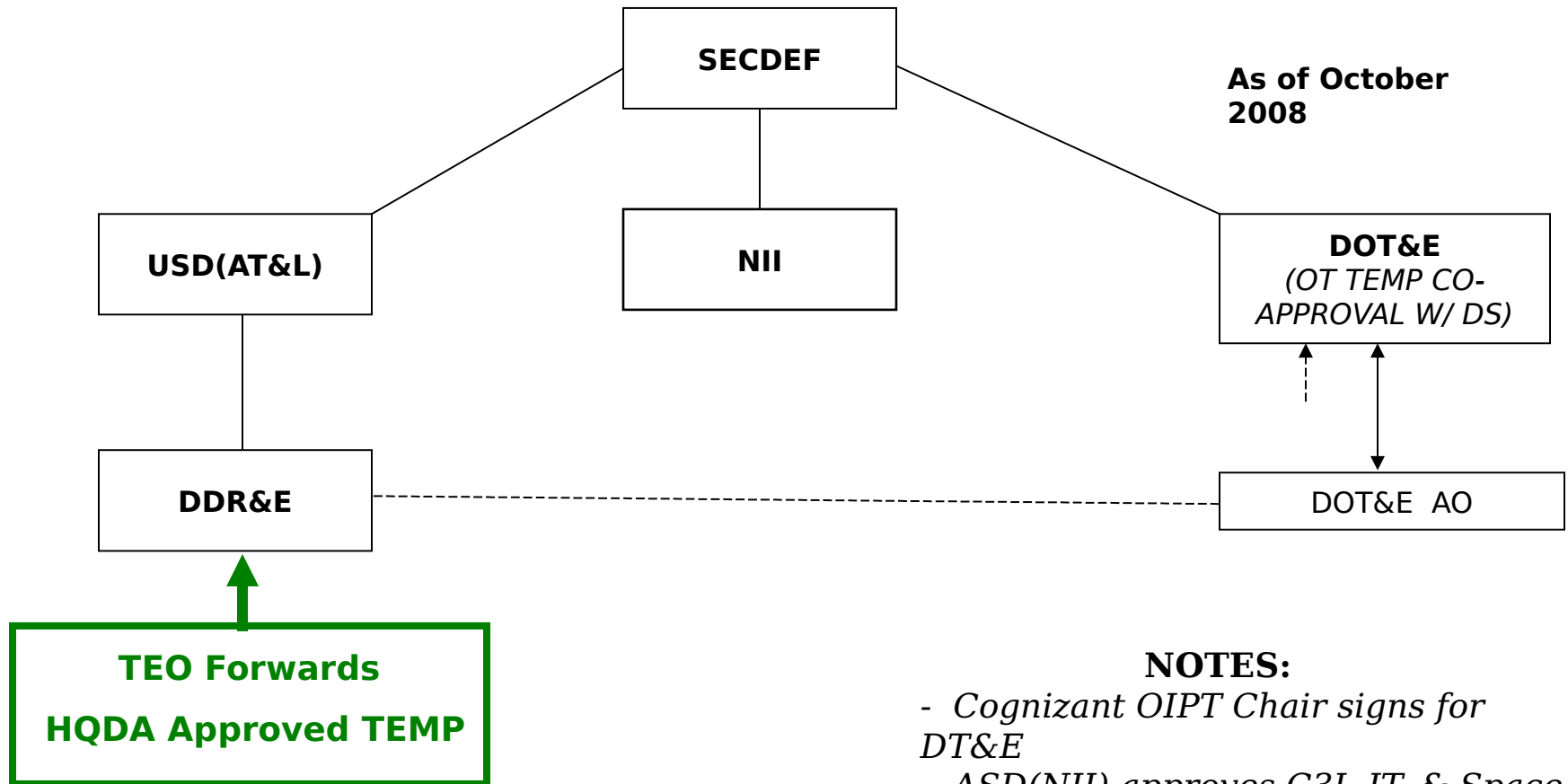


OSD TEMP Process

TEMAC T&E Refresher Course

OSD T&E Oversight Programs

TEMP Signature Process



NOTES:

- Cognizant OIPT Chair signs for DT&E
- ASD(NII) approves C3I, IT, & Space Programs
- Dir, DT&E approves for weapon programs

OSD TEMP Process

1 of 4

- **Develop the TEMP through the T&E WIPT process**
 - **Add the DT&E/DOT&E action officers to your T&E WIPT roster**
 - **Maintain informal dialog with the DT&E and DOT&E action officers, as well as their support contractor**
- **Use Defense Acquisition Guidebook to prepare TEMP**
 - **Provide sufficient details about your future T&E activities (Part III)**
 - **Be specific, but eliminate the “fluff”**
 - **TEMP is a master strategy document, not a detailed test plan. This is the section that answers the “how,” not the “why”**

OSD TEMP Process

2 of 4

- **Work with the Defense Intelligence Agency action officers**
 - **Plan to test the system against the threats in the System Threat Assessment**
- **To reduce the size of TEMPs, use pointers to other documents where more details are present**
 - **Software development plans**
 - **Modeling and simulation plans**
 - **Logistic support plans**
- **Include Modeling & Simulation in your T&E planning.**
 - **Reduces cycle time & costs**

OSD TEMP Process

3 of 4

- **Work to combine/integrate DT with OT to achieve mutual objectives at reduced costs:**
 - ✓ **Successfully completing independent OT&E (Title 10 statute requirement) is the final exam in T&E planning**
 - ✓ **Be careful to not give up [PM] control of your development test and evaluation plan to the operational test and evaluation side of the house**
 - ✓ **There will still be a requirement for a dedicated and controlled OT&E event**
 - ✓ **The DT&E is part of your risk reduction measures that are needed to ensure the system is ready for operational testing**
 - ✓ **If the size and scope of the dedicated OT&E can be reduced without jeopardizing your DT&E objectives, then combined DT and OT makes sense**

NOTE:

Early user involvement in DT.

Make sure users of IOT&E understand the process.

Make DT more rigorous to ensure success during IOT&E.

OSD TEMP Process

4 of 4

- **Submit electronic version of draft to OSD for staff review**
 - **Identifies “showstoppers” before TEMP enters the Service signature chain**
- **Let OSD know early if you need an extension to your TEMP Due Date**
- **45-day window for OSD signatures**



Acknowledgement & Feedback

This module is a part of the T&E Managers Committee (TEMAC) T&E Refresher Course.

Request your feedback. Please contact -

T&E Office

Deputy Under Secretary of the Army

102 Army Pentagon

Washington, D.C. 20310-0102

(703) 602-3508 / 2134 DSN: 332

TEMAC T&E Refresher Course